

CLAIMS

1. An information updating method for vehicle-mounted control units, comprising:
 - inquiring, when an updating event occurs, all the vehicles under the management of an information management base station unit, about the presence or absence of vehicle-mounted control units to be updated by the information management base station unit;
 - selecting the vehicles to be updated based on the replies from the individual vehicles; and
 - updating the vehicles to be updated via wireless communication.
2. An information updating method for vehicle-mounted control units, comprising:
 - transmitting information relating to an information update from an information management base station unit via wireless communication;
 - receiving the information on a vehicle;
 - determining whether or not the information update is necessary for the vehicle based on the received information at the vehicle end;
 - transmitting the determination result from the vehicle to the information management base station unit;
 - transmitting the update information from the information management base station unit to the vehicle via wireless communication if the information update is necessary for the vehicle; and
 - reprogramming the information of the vehicle-mounted control unit.
3. An update information communication system comprising an information management base station unit and a vehicle that can bidirectionally and wirelessly communicate with each other, wherein, when an updating event occurs, the information management base station unit inquires all the vehicles under its management about the presence or absence of vehicle-mounted control units to be updated, selects the vehicles to be updated based on the replies from the individual

vehicles, and updates the vehicles to be updated via wireless communication.

4. An update information communication system comprising an information management base station unit and a vehicle that can bidirectionally and wirelessly communicate with each other, wherein information relating to an information update is transmitted from the information management base station via wireless communication, the information is received by the vehicle, whether or not an information update is necessary for the vehicle is determined at the vehicle end based on the received information, the determination result is transmitted from the vehicle to the information management base station unit, the update information is transmitted from the information management base station unit to the vehicle via wireless communication if the information update is necessary for the vehicle, and information of the vehicle-mounted control unit is rewritten.
5. The update information communication system according to claim 4, wherein the information for the reprogramming comprises data such as programs and control constants in the vehicle-mounted control units.
6. The update information communication system according to claim 4, wherein the information transmitted from the information management base station unit to the vehicle includes management information concerning the vehicle-mounted control unit.
7. The update information communication system according to claim 4, wherein the period for reprogramming programs and data in the vehicle-mounted control unit is limited depending on the vehicle state.
8. The update information communication system according to claim 4, wherein the period for reprogramming programs and data in the vehicle-mounted control unit can

be limited to the vehicle being parked and not in operation.

9. The update information communication system according to claim 4, wherein the information management base station unit comprises a database in which update information and vehicle information for a plurality of types of vehicles are stored, wherein the information management base station unit selects specific update information from the database based on the vehicle information.

10. An information management base station unit capable of bidirectionally communicating with a vehicle wirelessly, wherein, when an updating event occurs, the information management base station unit inquires all the vehicles under its management about the presence or absence of vehicle-mounted control units to be updated, selects the vehicles to be updated based on the replies from the individual vehicles, and carries out an update on the vehicles to be updated via wireless communication.

11. A vehicle-mounted control unit capable of bidirectionally communicating with an information management base station wirelessly, wherein the vehicle-mounted control unit determines whether or not it is the unit to be updated in response to the inquiry of update from the information management base station unit, transmits the determination result to the information management base station unit, and carries out an update with an update information transmitted from the information management base station unit.